

Physics	Group-I	Paper-I
Time: 15 Minutes	(Objective Type)	Marks: 12

**Note:** Four possible answers A, B, C and D to each question are given. The choice which you think is correct, fill that circle in front of that question with Marker or Pen ink in the answer-book. Cutting or filling two or more circles will result in zero mark in that question.

**1-1- In SI, unit of pressure is Pascal, which is equal to:**

(a)  $10^4 \text{ Nm}^{-2}$       (b)  $1 \text{ Nm}^{-2}$  ✓  
 (c)  $10^2 \text{ Nm}^2$       (d)  $10^3 \text{ Nm}^{-2}$

**2- Mass of the Earth is:**

(a)  $6 \times 10^{24} \text{ kg}$  ✓      (b)  $6 \times 10^4 \text{ kg}$   
 (c)  $6 \times 10^{20} \text{ kg}$       (d)  $6 \times 10^{10} \text{ kg}$

**3- The number of perpendicular components of a vector are:**

(a) 1      (b) 2 ✓  
 (c) 5      (d) 4

**4- In solids, heat is transferred by:**

(a) Radiation      (b) Conduction ✓  
 (c) Convection      (d) Absorption

**5- The ways by which transfer of heat takes place are:**

(a) 1      (b) 2  
 (c) 3 ✓      (d) 4

**6- Which one of the following is the smallest quantity?**

(a) 0.01 g      (b) 2 mg  
 (c) 100  $\mu\text{g}$       (d) 5000 ng ✓

7- If the velocity of a body becomes double, then its kinetic energy:

- (a) Remains same
- (b) Becomes double ✓
- (c) Becomes four times
- (d) Becomes half

8- A change in position is called:

- (a) Torque
- (b) Velocity
- (c) Displacement ✓
- (d) Momentum

9- Which of the following material has largest specific heat?

- (a) Copper
- (b) Ice
- (c) Water ✓
- (d) Mercury

10- Earth's gravitational force of attraction vanishes at:

- (a) 6,400 km
- (b) Infinity ✓
- (c) 42,300 km
- (d) 1,000 km

11- Inertia depends upon:

- (a) Force
- (b) Net force
- (c) Mass ✓
- (d) Velocity

12- Rate of change of momentum is equal to:

- (a) Torque
- (b) Force ✓
- (c) Distance
- (d) Velocity